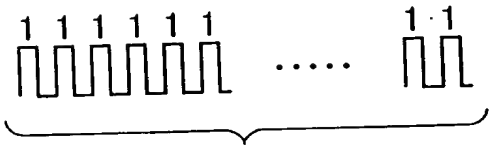
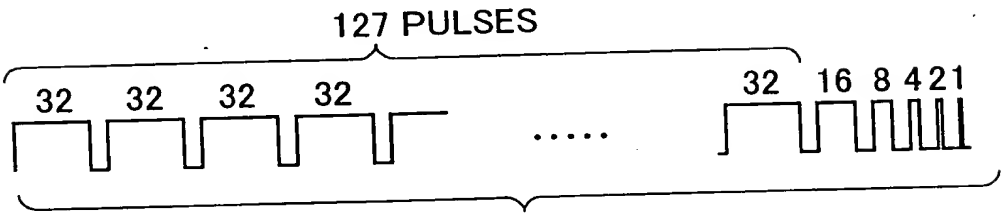
FIG. 1A



4,095-TIME-TRANSFER
REQUIRED:

FIG. 1B



127+1+1+1+1+1=132
4,096-STEPS OF GRADATION
USING 4,096-TIME-TRANSFER OBTAINED

T0027-990860

FIG. 2

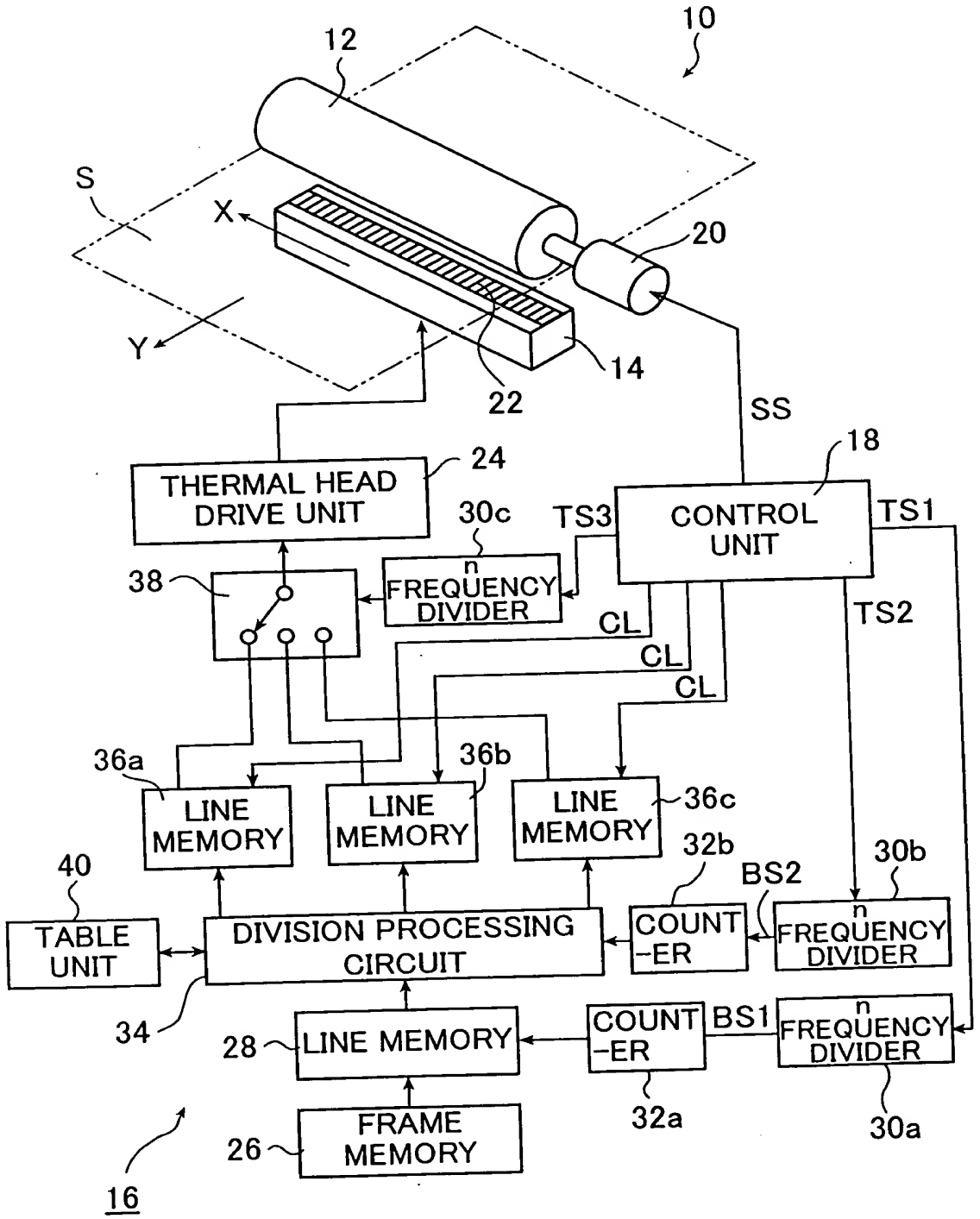

10
12
S
X
Y
20
14
22
SS
18
24
THERMAL HEAD DRIVE UNIT
30c
TS3
CONTROL UNIT
TS1
n
FREQUENCY DIVIDER
38
CL
CL
CL
TS2
36a
36b
LINE MEMORY
LINE MEMORY
LINE MEMORY
36c
32b
BS2
30b
40
TABLE UNIT
DIVISION PROCESSING CIRCUIT
COUNT-ER
n
FREQUENCY DIVIDER
34
28
LINE MEMORY
COUNT-ER
BS1
n
FREQUENCY DIVIDER
32a
30a
26
FRAME MEMORY
16

FIG.3A

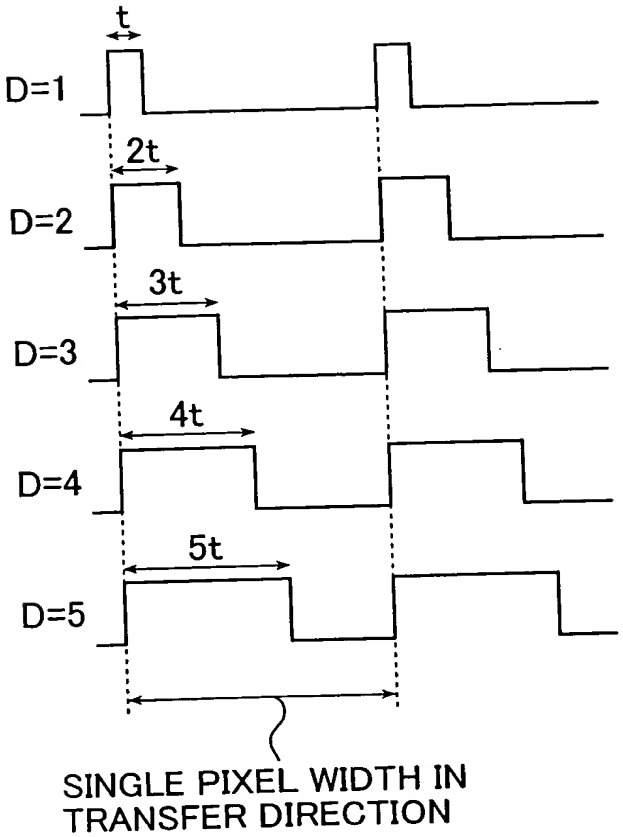

t
D=1
2t
D=2
3t
D=3
4t
D=4
5t
D=5
SINGLE PIXEL WIDTH IN TRANSFER DIRECTION

FIG.3B

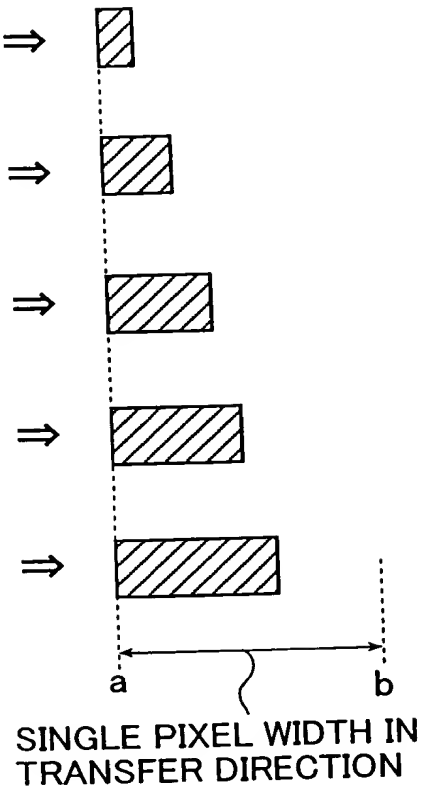

a
b
SINGLE PIXEL WIDTH IN TRANSFER DIRECTION

FIG. 4 (TABLE 1)

"width 32" × 127 + "width 16" + "width 8" + "width 4" + "width 2" + "width 1" (132 steps of dispersion, 132 pulse transfers)
"width 16" × 225 + "width 8" + "width 4" + "width 2" + "width 1" (259 steps of dispersion, 259 pulse transfers)
"width 8" × 511 + "width 4" + "width 2" + "width 1" (514 steps of dispersion, 514 pulse transfers)

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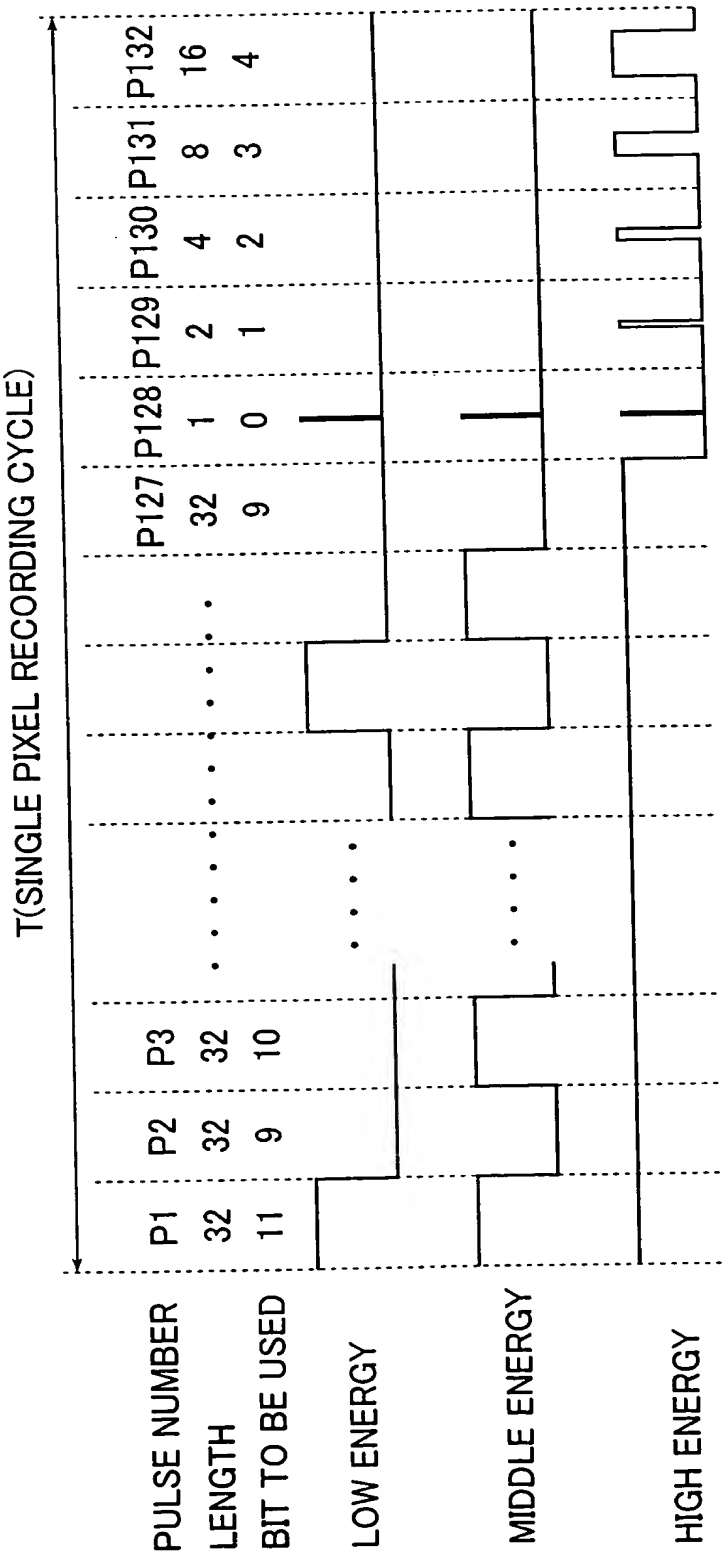
FIG.5(TABLE 2)


T(SINGLE PIXEL RECORDING CYCLE)
PULSE NUMBER
LENGTH
BIT TO BE USED
LOW ENERGY
MIDDLE ENERGY
HIGH ENERGY
P1 P2 P3 P127 P128 P129 P130 P131 P132
32 32 32 32 1 2 4 8 16
11 9 10 9 0 1 2 3 4

T00211" 69988660

FIG.6(TABLE 3)

BIT TO BE USED :0~11 DATA LEVEL 1027

DISPERSION	PIXEL POSITION(0~191)																			
	0	1	2	3	4	5	6	7	8	9	10		184	185	186	187	188	189	190	191
0	11	8	11	10	11	9	11	10	11	5	11		10	11	9	11	10	11	8	11
1	10	11	7	11	10	11	9	11	10	11	8		11	10	11	9	11	10	11	5
2	11	10	11	8	11	10	11	9	11	10	11		7	11	10	11	9	11	10	11
3	9	11	10	11	6	11	10	11	9	11	10		11	8	11	10	11	9	11	10
4	11	9	11	10	11	8	11	10	11	9	11		10	11	6	11	10	11	9	11
5	10	11	8	11	10	11	7	11	10	11	9	. . .	11	10	11	8	11	10	11	9
6	11	10	11	9	11	10	11	8	11	10	11		9	11	10	11	7	11	10	11
7	8	11	10	11	9	11	10	11	5	11	10		11	9	11	10	11	8	11	10
8	11	7	11	10	11	9	11	10	11	8	11		10	11	9	11	10	11	5	11
9	10	11	8	11	10	11	9	11	10	11	7		11	10	11	9	11	10	11	8
10	11	10	11	6	11	10	11	9	11	10	11		8	11	10	11	9	11	10	11
11	8	11	10	11	8	11	10	11	9	11	10		11	6	11	10	11	9	11	10
⋮					. . .											. . .				
125	10	10	11	9	11	10	11	7	11	10	11		9	11	10	11	8	11	10	11
126	11	11	10	11	9	11	10	11	8	11	10		11	9	11	10	11	7	11	10
127	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
128	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1
129	2	2	2	2	2	2	2	2	2	2	2		2	2	2	2	2	2	2	2
130	3	3	3	3	3	3	3	3	3	3	3		3	3	3	3	3	3	3	3
131	4	4	4	4	4	4	4	4	4	4	4		4	4	4	4	4	4	4	4

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FIG.7(TABLE 4)

132 DISPERSION 16×127+1+2+4+8

DATA LEVEL 1027

DISPERSION NUMBER OF DATA TO BE RECORDED (0~131)	PULSE WIDTH	PIXEL POSITION(0~191) COMMAND VALUE	0 1027	1 1027	2 1027	3 1027	4 1027	5 1027	6 1027	7 1027	8 1027	9 1027	10 1027	185 1027	186 1027	187 1027	188 1027	189 1027	190 1027	191 1027	NUMBER OF ON-PULSES AT EACH TIME
0	32		0	0	0	32	0	0	0	32	0	0	0	0	0	0	32	0	0	0	49
1	32		32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	0	48
2	32		0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	48
3	32		0	0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	49
4	32		0	0	0	32	0	0	0	32	0	0	0	0	0	0	32	0	0	0	49
5	32		32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	0	47
6	32		0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	49
7	32		0	0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	49
8	32		0	0	0	32	0	0	0	32	0	0	0	0	0	0	32	0	0	0	48
9	32		32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	0	48
10	32		0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	49
11	32		0	0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	49
⋮	⋮						•	•	•							•	•	•			⋮
125	32		32	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	0	48
126	32		0	0	32	0	0	0	32	0	0	0	32	0	0	32	0	0	0	32	49
127	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	193
128	2		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	193
129	4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	16		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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